

CLAIM OR CLAIMS

1. A combination model train sensor and signal comprising:

a train proximity sensor;

a red signal;

a green signal;

a controller connected to the train proximity sensor, the red signal and the green signal, said controller activating the green signal for display and deactivating the red signal when the train proximity sensor indicates the absence of a train and activating the red signal for display and deactivating the green signal when the train proximity sensor indicates the presence of a train.

2. The combination model train sensor and signal of claim 1 comprising a yellow signal, and wherein the controller activates the yellow signal for display between the display of the green signal and the display of the red signal, but does not activate the yellow signal for display between the display of the red signal and the display of the green signal.

3. The combination model train sensor and signal of claim 1 comprising a signal light, and in which activating the red signal comprises positioning a red filter over the signal light and activating the green signal comprises positioning a green filter over the light.

4. A combination model train sensor and signal comprising:

a train proximity sensor;

a safe to proceed signal;

a stop signal;

a controller connected to the train proximity sensor, the safe to proceed signal and the stop signal, said controller displaying the stop signal and terminating the safe to proceed signal when the train proximity sensor indicates the absence of a train and displaying the stop signal and terminating the safe to proceed signal when the train proximity sensor indicates the presence of a train.

5. The combination model train sensor and signal of claim 4 in which the safe to proceed signal comprises a stationary banjo signal, and the stop signal comprises a swinging banjo signal.

6. The combination model train sensor and signal of claim 4 in which the safe to proceed signal comprises a semaphore oriented in a generally vertical orientation and the stop signal comprises a semaphore oriented in a generally horizontal orientation.

7. The combination model train sensor and signal of claim 6 in which the semaphore comprises a light source and a plurality of colored filters, and in which the safe to proceed

signal comprises a green filter positioned over the light source and the stop signal comprises a red filter positioned over the light source.

8. The combination model train sensor and signal of claim 7 in which the filters are mounted on the semaphore and move into position over the light source as the semaphore moves between a vertical orientation and a horizontal orientation.

9. The combination model train sensor and signal of claim 4 in which the safe to proceed signal comprises a target signal having at least one light.

10. A combination model train sensor and block signal comprising:

a train proximity sensor including a light source and a light detector arranged to detect light from the light source only when reflected by an object;

a red signal;

a green signal;

a controller connected to the train proximity sensor, the red signal and the green signal, said controller displaying the green signal and turning off the red signal when the train proximity sensor indicates the absence of a train and displaying the red signal and turning off the green signal when the train proximity sensor indicated the presence of a train.

11. The combination model train sensor and block signal of claim 10 in which the light source is an infrared light source, and the light detector is an infrared light detector.

12. The combination model train sensor and block signal of claim 10 comprising an output connected to the train proximity sensor producing an output signal when the train proximity sensor indicates the presence of a train.

13. The combination model train sensor and block signal of claim 10 comprising a remote input connected to the controller responsive to a remote signal to display the green signal and conceal the red signal when the remote signal indicates the absence of a train and display the red signal and turn off the green signal when the remote signal indicates the presence of a train.

14. The combination model train sensor and block signal of claim 10 comprising an input/output signal connected to the controller for synchronizing the display of the red signal and the green signal with a remote signal.

15. The combination model train sensor and block signal of claim 14 in which the input/output signal produces a train present signal when the train proximity sensor indicates the presence of a train.

16. The combination model train sensor and block signal of claim 14 in which the controller is responsive to a train present signal applied to the input/output to display the red

signal and turn off conceal the green signal, even when the train proximity sensor indicates the absence of a train.

20. A combination model train sensor and signal comprising:

a train proximity sensor;

a red signal;

a green signal;

a controller connected to the train proximity sensor, the red signal and the green signal, said controller comprising a first transistor switch for turning on the green signal, the first transistor switch connected to be normally on; and

a second transistor switch having an input connected to the train proximity sensor, and an output connected to the red signal and to an input of the first transistor switch to turn the red signal on, and apply an off signal to the input of the first transistor switch to turn the green signal off when the train proximity sensor indicates the presence of a train.

21. The combination model train sensor and signal of claim 20 comprising an input/output connected to the controller for synchronizing the activation of the red signal and the green signal with a remote signal.

22. The combination model train sensor and signal of claim 21 in which the input/output is connected to the output of the second transistor switch.

23. The combination model train sensor and signal of claim 21 in which the input/output is connected to the output of the second transistor switch and to the input of the first transistor switch.

24. The combination model train sensor and signal of claim 20 comprising a delay circuit connected between the train proximity sensor and the control circuit for continuing to apply a train present signal to the controller for a predetermined time after the train proximity sensor indicates that a train is no longer present.

25. The combination model train sensor and signal of claim 20 in which the red signal is connected to the collector of the second transistor switch, and the green signal is connected to the emitter of the first transistor switch.

26. The combination model train sensor and signal of claim 25 in which the red signal is connected to the base of the first transistor switch.

27. The combination model train sensor and signal of claim 26 comprising a collector resistor connected from a voltage source to the red signal and the base of the first transistor switch.

28. The combination model train sensor and signal of claim 27 in which the emitter of the second transistor switch is connected to ground.

29. The combination model train sensor and signal of claim 28 in which the collector of the first transistor switch is connected to the voltage source.

30. The combination model train sensor and signal of claim 29 in which an input/output is connected to the collector of the second transistor switch.